

WHAT IS CLAIMED IS:

1. A method for detecting the presence of or predisposition to an ectodermal disorder comprising the steps of:

(a) detecting the presence of <sup>a human TAJ gene</sup> ~~a TAJ gene~~ or gene product in a cell; and

(b) correlating the presence of the TAJ gene or gene product with a presence of or predisposition to an ectodermal disorder.

2. <sup>The</sup> ~~A~~ method according to claim 1, wherein the detecting step comprises detecting a TAJ gene.

3. <sup>The</sup> ~~A~~ method according to claim 1, wherein the detecting step comprises detecting a TAJ gene transcript.

4. <sup>The</sup> ~~A~~ method according to claim 1, wherein the detecting step comprises detecting a TAJ protein.

5. <sup>The</sup> ~~A~~ method according to claim 1, wherein the detecting step is performed inferentially by determining a diagnostic sequence of the TAJ gene or gene product in the individual.

6. <sup>The</sup> ~~A~~ method according to claim 1, wherein the TAJ gene or gene product is a variant correlated with the presence of or predisposition to an ectodermal disorder.

7. <sup>The</sup> ~~A~~ method according to claim 1, wherein the ectodermal disorder is an ectodermal dysplasia syndrome.

8. <sup>The</sup> ~~A~~ method according to claim 1, wherein the ectodermal disorder is an ectodermal dysplasia syndrome and the syndrome is Clouston syndrome.

9. A method for modulating the functional expression of a TAJ gene or gene product in a cell comprising the step(s) of:

contacting a cell with an agent which specifically binds and modulates the functional

expression of a TAJ gene or gene product, wherein:

(a) the cell is an ectodermal cell; or

(b) the cell is a germ cell which gives rise to progeny ectodermal cells and detecting the functional expression of the TAJ gene or gene product in the progeny cells.

5

10. <sup>The</sup> A method according to claim 9, wherein the cell is in situ.

11. <sup>The</sup> A method according to claim 9, wherein the cell is ex situ.

10 12. <sup>The</sup> A method according to claim 9, wherein the contacting step reduces the functional expression of the TAJ gene or gene product.

13. <sup>The</sup> A method according to claim 9, wherein the agent is an antibody which specifically binds a TAJ protein.

15 14. <sup>The</sup> A method according to claim 9, wherein the agent is an intrabody which specifically binds a TAJ protein.

20 15. <sup>The</sup> A method according to claim 9, wherein the agent is an agonist or antagonist of a TAJ protein.

16. <sup>The</sup> A method according to claim 9, wherein the agent is an antisense oligonucleotide which specifically binds a TAJ gene transcript.

25 17. <sup>The</sup> A method according to claim 9, wherein the agent is an oligonucleotide which specifically binds a TAJ gene.

18. <sup>The</sup> A method according to claim 9, wherein the agent is an oligonucleotide which specifically binds a TAJ gene, whereby the gene is changed to a different TAJ gene.

30 19. <sup>The</sup> A method according to claim 9, wherein the agent is an oligonucleotide which

specifically binds a TAJ gene, whereby the gene is changed from a TAJ gene correlated with a presence of or predisposition to an ectodermal disorder to a different TAJ gene not so correlated.

5 20. <sup>The</sup> ~~A~~ method according to claim 9, wherein the agent is an oligonucleotide which specifically binds a TAJ gene, whereby the gene is changed from a TAJ gene correlated with a presence of or predisposition to an ectodermal disorder to a different TAJ gene not so correlated, wherein the ectodermal disorder is an ectodermal dysplasia syndrome.

10 21. <sup>The</sup> ~~A~~ method according to claim 9, wherein the agent is an oligonucleotide which specifically binds a TAJ gene, whereby the gene is changed from a TAJ gene correlated with a presence of or predisposition to an ectodermal disorder to a different TAJ gene not so correlated, wherein the ectodermal disorder is an ectodermal dysplasia syndrome and the syndrome is Clouston syndrome.